



January 2014

2013 age profile of the academic staff in universities, polytechnics and wānanga

The ageing of New Zealand's academic workforce has previously been identified as an area requiring careful management by providers and sector groups. In 2013, 45 percent of the academic staff in technical and higher education was aged 50 years and over. This compared to 41 percent at the time of the 2006 census. The proportion of the total New Zealand workforce aged 50 years and over was 35 percent in 2013 and 29 percent in 2006. Likewise, the non-academic staff in technical and higher education has a younger age structure than the academic staff. In 2013, 38 percent of the non-academic staff was aged 50 years and over and, in 2006, the proportion was only 29 percent.

At universities, the proportion of the academic staff aged 50 years and over was 47 percent in 2013 and, at polytechnics, it was 50 percent. At both the universities and polytechnics, 19 percent of the academic staff was aged 60 years and over in 2013 and more than 8 percent was aged 65 years and over (Figure 1). However, the age structure of the academic staff at universities became slightly younger between 2012 and 2013 due to an increase in the proportion aged 29 years and under and small proportional decreases in the older age groups. At polytechnics, the age structure became slightly older between 2012 and 2013 due to a decrease in the proportion aged 30 to 49 years and small proportional increases in the older age groups.

Comparing the 2013 age structure of the academic staff at wānanga to the 2006 census data (covers all teaching staff), shows that it continues to be younger with larger proportions in the younger age groups and smaller proportions in the older age groups. In 2013, only 38 percent of wānanga academic staff was aged 50 years and over.

KEY FINDINGS

In 2013, the age structure of the academic staff at universities and polytechnics was substantially older than at wānanga:

- 47 percent of the university academic staff employed in 2013 was aged 50 years and over (compared to 49 percent in 2012)
- 50 percent of the polytechnic academic staff employed in 2013 was aged 50 years and over (compared to 49 percent in 2012)
- 38 percent of the wānanga academic staff employed in 2013 was aged 50 years and over (compared to 38 percent in 2012)

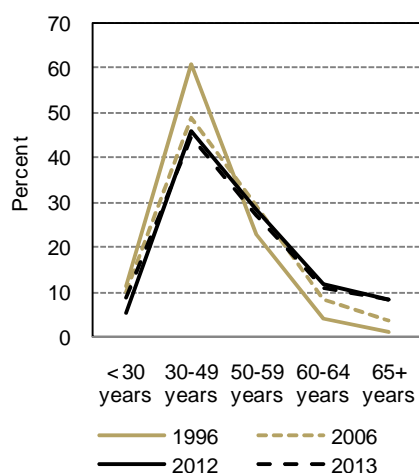
In response to the greater focus on research performance, universities now have a smaller pool of lecturers from which rejuvenation of the senior academic workforce can occur, potentially encouraging institutions to do more recruitment overseas. However, universities now have a larger pool of 'other' academic staff from which rejuvenation of the senior academic workforce could occur – this group covers other teaching or combined teaching/ research staff such as assistant lecturers, visiting academics, teaching fellows, etc.

Polytechnics now employ a higher proportion of principal lecturers due to the 'drag effect' of an ageing workforce, but the structure of their academic staff by designation has not changed significantly overall so that rejuvenation of the senior academic workforce can occur from a large pool of tutors.

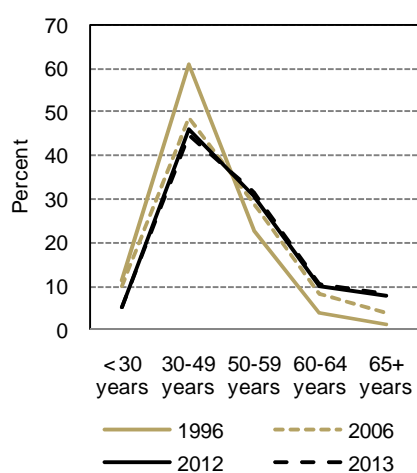
Wānanga have a younger age structure than universities and polytechnics and they have a large pool of tutors from which rejuvenation of the senior academic workforce can occur.

Figure 1:

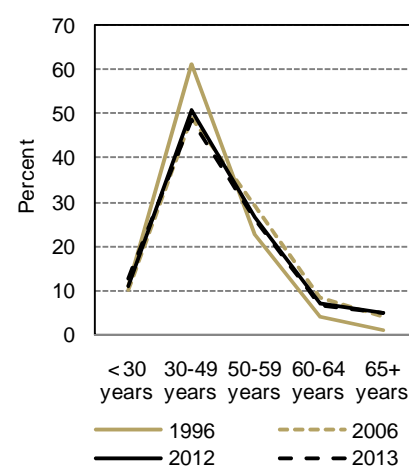
Academic staff at universities



Academic staff at polytechnics



Academic staff at wānanga



Note: Data for 1996 and 2006 is from the population census and includes all teaching staff in technical and higher education employed by public and private providers.

Age differences in the academic workforce by gender

In 2013, the age structure of the academic staff was slightly older for men than women at universities and polytechnics (Figure 2). At public tertiary education institutions overall, 51 percent of men in the academic workforce were aged 50 years and over, compared to 47 percent of women.

At universities, 49 percent of the male academic staff was aged 50 years and over in 2013, compared to 52 percent at polytechnics. The comparable figures for women were 43 percent at universities and 48 percent at polytechnics.

The gender differences at universities and polytechnics were largest for academic staff aged 60 years and over. At universities, 23 percent of men were aged 60 years and over in 2013, compared to 16 percent of women. At polytechnics, 21 percent of men and 17 percent of women were aged 60 years and over.

From 2012 to 2013, the age structure of the female academic staff at wānanga became slightly older, while for men it became younger. This resulted in 38 percent of both the male and female academic staff being aged 50 years and over in 2013.

Recruitment policies could be targeted to try and alleviate both the ageing of the academic workforce and some gender imbalances that continue to exist in areas such as academic leadership.

A move to increase the employment of women has taken place at public tertiary education institutions over the last couple of decades. In terms of the academic headcount, the ratio of women to men in 2013 was 49 to 51. This compared to a ratio in 1994 of 42 women to every 58 men. In terms of the number of full-time equivalent staff, the ratio of women to men in 2013 was 47 to 53. This compared to a ratio in 1994 of 40 female full-time equivalent staff to every 60 male full-time equivalent staff.

Universities

In 2013, there were 1,870 women and 3,080 men at universities in the more senior academic designations – professors, associate professors and senior lecturers. In 2013, these senior designations comprised 54 percent of the total academic staff at universities. Lecturers represented 15 percent of the total academic staff in 2013 and the other academic staff comprised 30 percent.

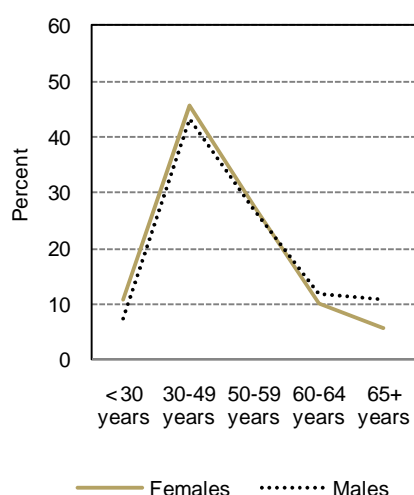
Female professors are more likely to be younger than male professors. Twenty-one percent of female professors were aged 30 to 49 years in 2013, compared to 17 percent for men. The female ‘other’ academic staff at universities are also slightly more likely to be younger than the male ‘other’ academic staff. Forty-three percent of the female ‘other’ academic staff was aged 30 to 49 years, compared to 41 percent for men.

The reverse applied among lecturers and professors in 2013 with the proportions in the younger age groups being slightly higher among men than women. Fifty-two percent of male senior lecturers were aged 30 to 49 years, compared to 46 percent of female senior lecturers. Seventy-one percent of male lecturers were aged 30 to 49 years, compared to 67 percent of female lecturers. Similarly, 35 percent of male associate professors were aged 30 to 49 years, compared to 33 percent for women.

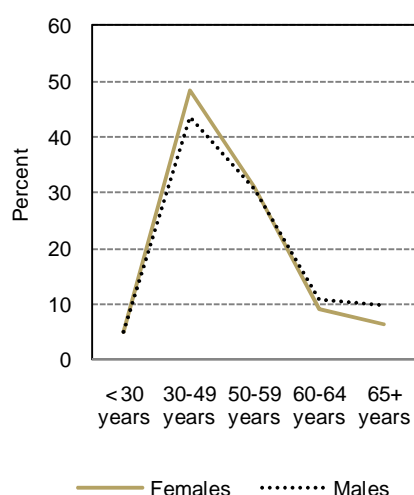
Over the last decade, there has been a decrease in the number of lecturers at universities and this was stronger for women (down by 634) than for men (down by 429). However, the difference was partially offset by increases over the same period in the number of female senior lecturers (up by 125), female associate professors (up by 187) and female professors (up by 136). The number of male senior lecturers at universities also decreased from 2003 to 2013 (down by 474). Largely offsetting this decrease were increases over the same period in the number of male professors (up by 334) and male associate professors (up by 66). In 2013, there were 1,310 female and 1,500 male senior lecturers and 725 female and 667 male lecturers.

Figure 2:

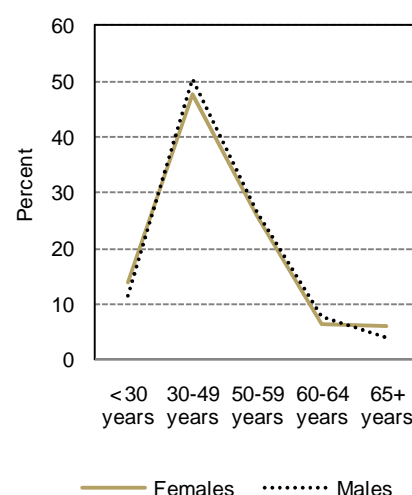
University academic staff by gender in 2013



Polytechnic academic staff by gender in 2013



Wānanga academic staff by gender in 2013



Polytechnics

Female deans/heads of department were more likely to be older than male deans/heads of department. In 2013, 90 percent of female deans and 65 percent of female heads of department were aged 50 years and over. For men, the comparable figures were 75 percent of deans and 55 percent of heads of department. In 2013, deans/heads of department comprised 5.0 percent of the total academic staff at polytechnics.

On the other hand, the overall age structure of the female academic staff at polytechnics was slightly younger than for men. This was due to women having larger proportions of lecturers and tutors in the younger age groups than men. Women aged 30 to 49 years comprised 36 percent of lecturers and 52 percent of tutors. Men in this age group comprised 31 percent of lecturers and 48 percent of tutors. In 2013, lecturers comprised 21 percent of the total academic workforce at polytechnics, and tutors 67 percent.

The greater equality between men and women in the senior academic roles at polytechnics may, in part, be attributable to these tertiary education providers teaching qualifications directed at a larger number of female-dominated occupations such as nursing. In 2013, there were 772 women and 743 men in senior academic positions. This meant that 51 percent of the senior designations – deans, heads of department and lecturers – were held by women.

Wānanga

At wānanga, in 2013, male deans were more likely to be older than female deans, and the other way round in the case of heads of department. Male lecturers were more likely to be younger than female lecturers at wānanga, in 2013, while the age structure of tutors was very similar for males and females. Male tutorial assistants at wānanga were also more likely than female tutorial assistants to be younger in 2013.

Designation differences in the pattern of ageing at universities

There were noticeable differences, by designation, in the pattern of ageing among the academic staff at universities. For example, 82 percent of professors were aged 50 years and over in 2013, compared to only 26 percent of lecturers. Compounding the ageing of the academic staff at universities over the last decade are increases in the more experienced staff such as professors and decreases in the number of lecturers who tend to be younger, on

average, than professorial staff. This reflects both the ‘drag’ effect of an ageing workforce and a strategic decision by some universities to employ academics with a greater research profile.

Since 2003, the number of professors has averaged an increase of 5.5 percent per year, while the number of lecturers decreased by 5.5 percent per year.

Table 1 and Figure 3 illustrate the age structure of the university academic staff by designation. Associate professors had the second highest proportion of their number aged 50 years and over, at 66 percent, followed by senior lecturers, at 51 percent. The ‘other’ academic staff had 31 percent of their number aged 50 years and over and for lecturers the figure was 26 percent.

Research-only staff had the smallest proportion of their number aged 50 years and over, at 22 percent. This reflects the fact that many university research-only positions are post-doctoral fellowships and other early-career researchers.

The younger age structure of the pool of university lecturers indicates that this group continues to be an important source of rejuvenation of the university academic workforce. That is, young people enter as lecturers and stay to become senior lecturers or professors. Therefore, the shrinking of the number of lecturers suggests that the pool from which rejuvenation occurs is getting smaller – potentially encouraging institutions to do more recruitment overseas.

Other teaching or combined teaching/research staff at universities

The ‘other’ academic workforce has a younger age structure making it another potential source of recruits to alleviate the ageing of the academic workforce at universities.

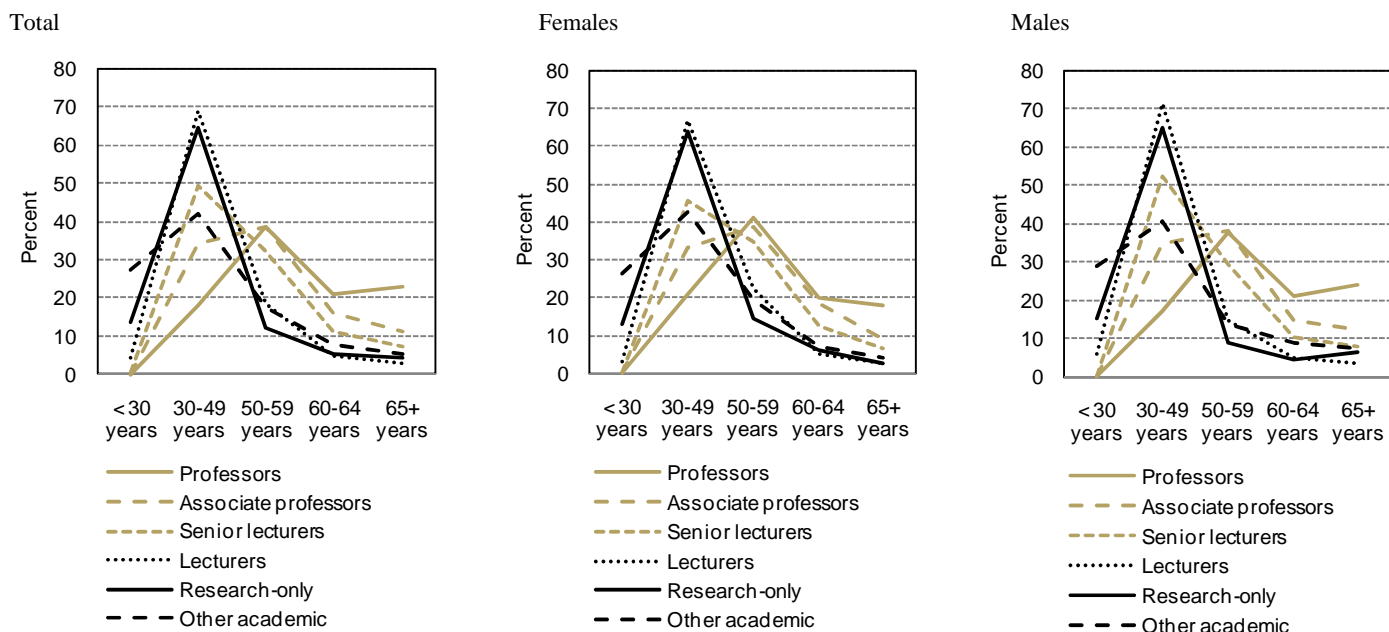
‘Other’ academic staff work mainly part-time and, in 2013, 60 percent of the ‘other’ academic staff were women.

Figure 3 shows that the ‘other’ academic staff at universities has a larger proportion of staff in the younger age groups than professors and lecturers. In 2013, 27 percent of the ‘other’ academic staff was aged 30 years or under, compared to only 4.5 percent of lecturers, and five senior lecturers. Forty-two percent of the ‘other’ academic staff was aged 30 to 49 years and although senior lecturers had a higher proportion of their number in this age group (49 percent), the proportions were considerably smaller for associate professors (34 percent) and professors (only 18 percent).

Table 1: Age distribution of the academic and research-only staff at universities in 2013 by designation and gender

	Professors		Associate professors		Senior lecturers		Lecturers		Other academic staff		Research-only staff	
	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males
	Percentages											
< 30 years	0.0	0.0	0.0	0.0	0.2	0.1	3.4	5.8	26.3	29.1	12.8	15.0
30-49 years	21.0	17.2	33.1	34.9	45.6	52.2	66.8	71.3	42.7	40.7	63.9	65.2
50-59 years	41.1	37.8	38.9	38.2	35.0	29.6	22.4	14.7	19.7	13.9	14.5	9.0
60-64 years	20.1	21.1	18.7	14.6	12.5	10.2	4.9	4.9	7.2	8.9	6.3	4.3
65+ years	17.9	23.9	9.3	12.4	6.7	7.9	2.5	3.3	4.1	7.4	2.5	6.5
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
No. of staff	225	908	332	673	1,314	1,499	725	667	1,658	1,119	755	603

Figure 3: Academic staff at universities in 2013 by designation



Note: The 'other' academic staff at universities refers to the 'other teaching or combined teaching/research staff.' This group includes assistant lecturers, senior tutors, tutors, visiting academics, teaching fellows, etc.

Looking at those who are 60 years and over, only 13 percent of the 'other' academic staff was in this category in 2013. While lecturers and research-only staff had even fewer of their number aged 60 years and over (less than 10 percent) among the senior designations the proportions aged 60 years and over were, again, higher in 2013 – 19 percent of senior lecturers, 27 percent of associate professors and 44 percent of professors.

Smaller ageing differences by designation at polytechnics

The age structure of the academic workforce at polytechnics appears more evenly spread throughout the designations (Figure 4). As expected, the most senior designations, including principal/senior lecturers, had the largest proportions of staff aged 50 years and over.

Eighty-three percent of deans and 60 percent of heads of department were aged 50 years and over in 2013. Twenty-seven percent of deans were aged 60 to 64 years and 3.8 percent were

aged 65 years and over. Heads of department had fewer of their number aged 60 to 64 years, at 12 percent, and only 2.8 percent of them were aged 65 years and over (Table 2).

In 2013, 67 percent of lecturers at polytechnics were aged 50 years and over. Polytechnic lecturers had the largest proportion of their number aged 65 years and over, at 11 percent, and another 16 percent of lecturers were aged 60 to 64 years.

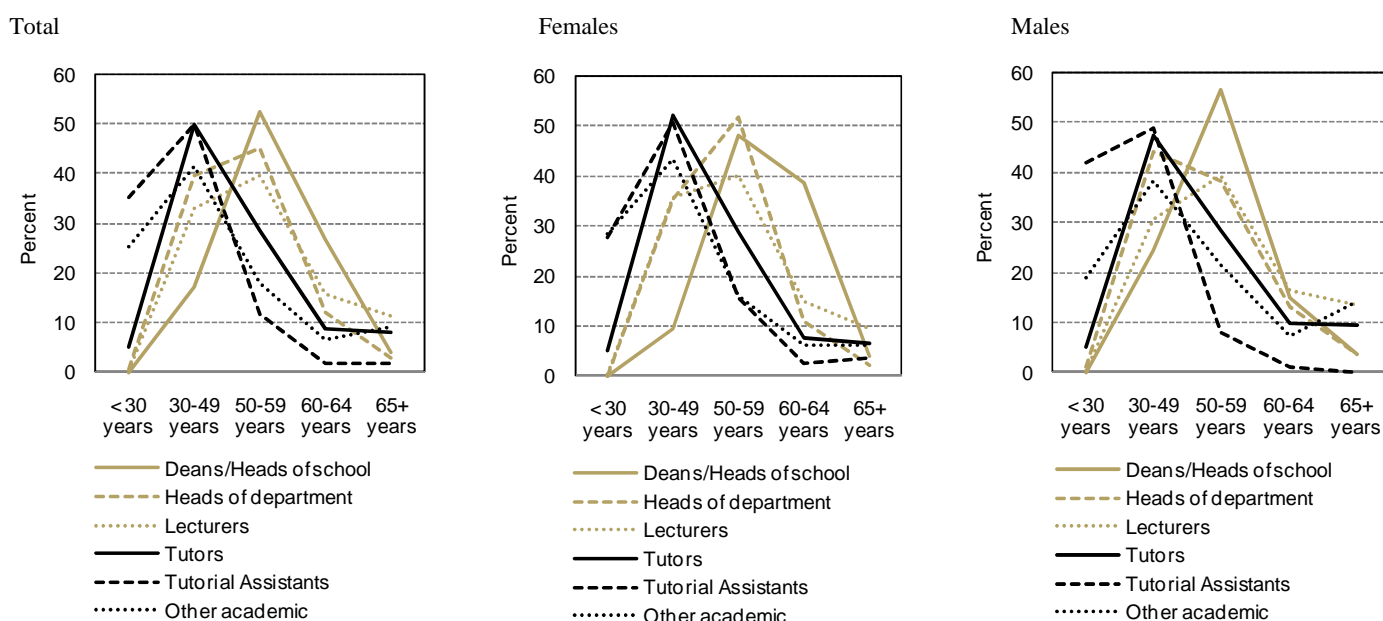
Tutors comprised two-thirds of the academic workforce at polytechnics in 2013 and 55 percent of this group was aged 50 years or younger. This makes it the largest pool of potential recruits to help alleviate the ageing of the senior academic workforce at polytechnics.

Tutorial assistants and 'other' academic staff at polytechnics had the highest proportion of their number aged less than 50 years. However, these groups accounted for only 6 percent of the total academic staff at polytechnics in 2013.

Table 2: Age distribution of the academic staff at polytechnics in 2013 by designation and gender

	Deans/heads of school		Heads of department		Principal/senior lecturers		Senior tutors/tutors		Tutorial assistants		Other academic staff	
	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males
	Percentages											
< 30 years	0.0	0.0	0.0	1.2	0.2	0.2	5.1	5.0	27.7	42.0	28.4	19.0
30-49 years	9.6	24.5	35.5	44.0	35.5	30.7	52.1	47.5	50.6	48.9	43.2	38.1
50-59 years	48.1	56.6	51.6	38.1	40.1	39.4	28.7	28.2	15.7	8.0	16.0	21.4
60-64 years	38.5	15.1	10.8	13.1	14.8	16.4	7.8	9.8	2.4	1.1	6.2	7.1
65+ years	3.8	3.8	2.2	3.6	9.4	13.4	6.3	9.4	3.6	0.0	6.2	14.3
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
No. of staff	53	53	95	85	624	605	2,009	1,865	133	99	83	45

Figure 4: Academic staff at polytechnics in 2013 by designation



Note: Lecturers in Figure 4 refer to principal/senior lecturers. Tutors include senior tutors and tutors.

The age structure of the academic staff at wānanga

At wānanga, the age structure of the female academic staff became older from 2012 to 2013, while for the male academic staff it became younger. In 2012, 36 percent of the female academic staff was aged 50 years and over and, in 2013, the proportion increased to 38 percent. In 2012, 41 percent of the male academic staff was aged 50 years and over and, in 2013, this proportion decreased to 38 percent.

While the female academic staff aged 29 years and under increased, proportionately, from 2012 to 2013, the proportion aged 30 to 49 years decreased more strongly. Also, there were small proportional increases in all the older age groups.

The two main factors causing the age structure of the male academic staff at wānanga to become younger from 2012 to 2013, were a 4 percentage point increase in the male academic staff aged 30 to 49 years and a similar size proportional decrease in the older age groups.

Tutors are a likely source of rejuvenation of the wānanga academic workforce. This group comprised almost two-thirds of the total academic staff at wānanga in 2013 and 62 percent of them were aged 50 years and younger. Also, the 'other' academic staff totalled about a quarter of the total academic staff at wānanga and 68 percent of them were aged 50 years and younger.

The information presented here is based on data provided to the Ministry of Education by tertiary education institutions. The data on age group refers to the number of staff employed during the first week in August.

The tertiary education workforce reported on here consists of the staff employed in technical and vocational education and training and in higher education. Also included in this analysis is the research-only staff employed by the universities.

'Academic staff' refers to professors, deans, heads of department, lecturers, tutors, tutorial assistants and other academic staff.

At universities, 'other academic staff' refers to other teaching or combined teaching/research staff. This group includes assistant lecturers, visiting academics, teaching fellows, etc.

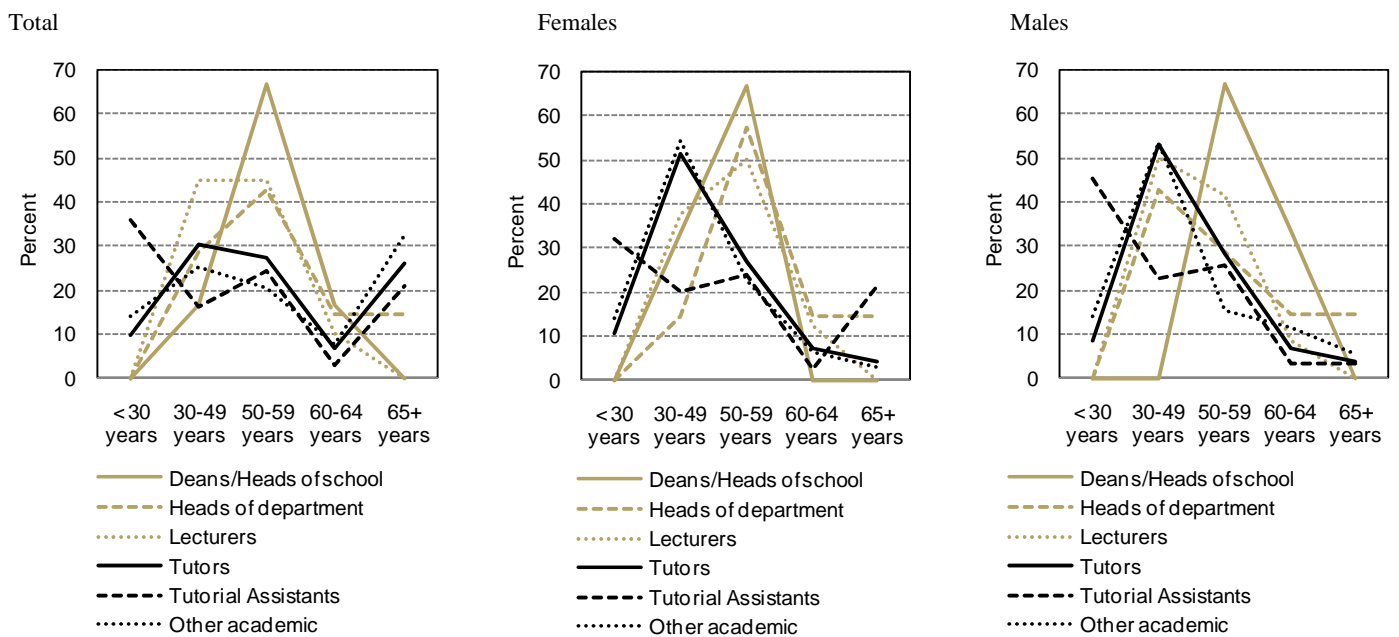
Note: The pattern of ageing used here excludes the staff with unknown ages. At universities, the ages of 1.1 percent of the academic staff were unknown in 2013. At polytechnics, the figure was 13 percent, while at wānanga there was no staff with unknown ages in 2013.

A supporting set of statistical tables is available on: www.educationcounts.govt.nz.

For more statistical data on the tertiary education workforce go to: www.educationcounts.govt.nz/statistics/tertiary_education/resources.

Table 3: Age distribution of the academic staff at wānanga in 2013 by designation and gender

	Deans/heads of school		Heads of department		Principal/senior lecturers		Tutors		Tutorial assistants		Other academic staff	
	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males
	Percentages											
< 30 years	0	0	0	0	0	0	10.6	8.4	32.0	45.2	14.0	14.1
30-49 years	33.3	0.0	14.3	42.9	37.5	50.0	51.1	53.2	20.0	22.6	54.5	53.5
50-59 years	66.7	66.7	57.1	28.6	50.0	41.7	26.7	28.1	24.0	25.8	22.5	15.5
60-64 years	0	33.3	14.3	14.3	12.5	8.3	7.2	6.7	2.7	3.2	6.2	11.3
65+ years	0	0	14.3	14.3	0	0	4.3	3.7	21.3	3.2	2.8	5.6
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
No. of staff	3	3	7	7	8	12	349	299	75	31	178	71

Figure 5: Academic staff at wānanga in 2013 by designation

Note: Lecturers in Figure 5 refer to principal/senior lecturers. Tutors include senior tutors and tutors.

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